



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/890,546	07/31/2001	Thierry Lucidarme	P-6250	4646

7590 09/08/2004

Michael L Kenaga  
Rudnick & Wolfe  
PO Box 64807  
Chicago, IL 60664-0807

EXAMINER

CUMMING, WILLIAM D

ART UNIT	PAPER NUMBER
2683	

DATE MAILED: 09/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/890,546

Applicant(s)

THIERRY LUCIDARME

Examiner

WILLIAM D CUMMING

Art Unit

2683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2001.
- 2a) ☐ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 9-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9-16 is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 July 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Information Disclosure Statement***

2. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, *"the list may not be incorporated into the specification but must be submitted in a separate paper."* Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

3. The listing of references in the Search Report is not considered to be an information disclosure statement (IDS) complying with 37 CFR 1.98. 37 CFR 1.98(a)(2) requires a legible copy of: (1) each U.S. and foreign patent; (2) each publication or that portion which caused it to be listed; (3) for each cited pending U.S. application, the application specification including claims, and any drawing of the application, or that portion of the application which caused it to be listed including any claims directed to that portion; and (4) all other information, or that portion which caused it to be listed. In addition, each IDS must include a list of all patents, publications, applications, or other information submitted for consideration by the Office (see 37 CFR 1.98(a)(1) and (b)), and MPEP § 609 subsection III. A(1) states, *"the list ... must be submitted on a separate paper."* Therefore, the references cited in the Search Report have not been considered. Applicant is advised that the date of submission of any item of information or any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the IDS, including all *"statement"* requirements of 37 CFR 1.97(e). See MPEP § 609 subsection III. C(1).

### ***Drawings***

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description:

Element TRL.

5. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

6. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description:

Element #10.

7. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

## **8. INFORMATION ON HOW TO EFFECT DRAWING CHANGES**

### **Replacement Drawing Sheets**

Drawing changes must be made by presenting replacement figures which incorporate the desired changes and which comply with 37 CFR 1.84. An explanation of the changes made must be presented either in the drawing amendments, or remarks, section of the amendment. Any replacement drawing sheet must be identified in the top margin as "*Replacement Sheet*" (37 CFR 1.121(d)) and include all of the figures appearing on the immediate prior version of the sheet, even though only one figure may be amended. The figure or figure number of the amended drawing(s) must not be labeled as "amended." If the changes to the drawing figure(s) are not accepted by the examiner, applicant will be notified of any required corrective action in the next Office action. No further drawing submission will be required, unless applicant is notified.

Identifying indicia, if provided, should include the title of the invention, inventor's name, and application number, or docket number (if any) if an application number has not been assigned to the application. If this information is provided, it must be placed on the front of each sheet and centered within the top margin.

### **Annotated Drawing Sheets**

A marked-up copy of any amended drawing figure, including annotations indicating the changes made, may be submitted or required by the examiner. The annotated drawing sheets must be clearly labeled as "*Annotated Marked-up Drawings*" and accompany the replacement sheets.

### **Timing of Corrections**

Applicant is required to submit acceptable corrected drawings within the time period set in the Office action. See 37 CFR 1.85(a). Failure to take corrective action within the set period will result in **ABANDONMENT** of the application.

### ***Allowable Subject Matter***

9. Claims 9-16 are allowed.
10. As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

11. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record does not disclose or make obvious the claimed radio station comprising several antennas with hybrid polarizing couplers. Each of the polarizing couplers having at least one input to a radio signal processing means which has at least one receiver and two outputs connected to the antenna. The outputs deliver two quadrature radio signals in response to a transmission signal received on one of the two inputs of the polarizing coupler. The antenna which is associated generates two orthogonal electric field components forming a circularly polarized wave. The receiver is arranged as to combine several input radio signals obtained from the respective inputs of the hybrid polarizing couplers. The antennas are placed so as to radiate toward diametrically opposite sectors. The examiner is not fully convince that the claimed radio can do all these claimed functions since hybrid polarizing couplers are used for optical communications systems, not in low wave radio frequencies systems. There is no explanation how a radio device could unitize hybrid polarizing couplers. But the examiner can not rightly make a rejection under 35 USC §112 and gives the benefit of doubt to the applicants.

***Response to Amendment*****12. Patent Application Publications May Now Include Amendments**

As a consequence of the use of Image File Wrappers (IFW), the United States Patent and Trademark Office (Office) has begun to publish patent applications with amendments that expedite the publication process. For example, the patent application publication may be based upon amendments to the specification that are reflected in a substitute specification, an amendment to the abstract, amendments to the claims that are reflected in a complete claim listing, and amendments to the drawings that are reflected in replacement drawing sheets, provided that such substitute specification or amendment is submitted in sufficient time to be entered into the application file wrapper before technical preparations for publication of the application have begun. Technical preparations for publication of an application generally begin between fourteen and nine weeks prior to the projected date of publication (the projected publication date is indicated on the filing receipt for the patent application). Accordingly, the provisions 37 CFR 1.215(a) are waived to the extent that they are inconsistent with this change in practice. 37 CFR 1.215(a) will be revised consistent with this change in practice, when the rule changes proposed in Changes To Support Implementation of the United States Patent and Trademark Office 21st Century Strategic Plan, 68 Fed. Reg. 53816 (Sept. 12, 2003), 1275 Off. Gaz. Pat. Office Notices 23 (Oct 7, 2003) are made final.

Although the Office has begun to include amendments in patent application publications, applicants desiring to ensure that a patent application publication reflects an amendment should submit the application, as amended, through the Electronic Filing System (EFS). See 37 CFR 1.215(c). See also Helpful Hints Regarding Publication of Patent Applications, 1249 Off. Gaz. Pat. Office Notices 83 (August 21, 2001). In addition, if the application is not maintained in an IFW, and the amended application is not submitted through EFS, a petition under 37 CFR 1.182 will continue to be necessary for certain drawings to be included in the patent application publication. See Manual of Patent Examining Procedure, Section 507 (8th ed. 2001, rev. 1, Feb. 2003).

General questions regarding publication of patent applications should be directed to the Customer Service Center, Office of Patent Publication, by telephone at (703) 305-8283. Questions regarding the Electronic Filing System should be directed to (703) 305-3028. Questions of a legal nature should be directed to the Office of Patent Legal Administration at (703) 308-6906.



**13. Elimination of Post Office Box in Arlington, Virginia for Patent Related Correspondence**

Effective June 1, 2004, the Office will cease accepting patent-related correspondence addressed to the P.O. Box 2327 Arlington, VA 22202. Effective May 1, 2003, pursuant to 37 CFR 1.1, patent-related correspondence should have been addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450. Accordingly, as of May 1, 2003, the provisions of 37 CFR 1.8 (Certificate of Mailing) and 1.10 (Express Mail certificate) that were waived by the Office were no longer waived for correspondence addressed to P.O. Box 2327, Arlington, VA 22202.

In November of 2001, the Office established a Post Office Box in Arlington, Virginia (P.O. Box 2327, Arlington, VA 22202) for use on an emergency basis, and indicated that the Office would continue to accept patent-related correspondence at this Arlington, Virginia Post Office Box and treat such correspondence as if it were addressed as set forth in 37 CFR 1.1 for purposes of 37 CFR 1.8 and 1.10 until further notice. On March 25, 2003, the Office provided notice that persons submitting correspondence to the Office should no longer use the Arlington, Virginia Post Office Box for any correspondence (including sequence listings in electronic format) after May 1, 2003. See Correspondence with the United States Patent and Trademark Office, 68 Fed. Reg. 14332 (March 25, 2003).

Correspondence in patent-related matters to organizations reporting to the Commissioner for Patents must be addressed to:

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Appropriate mail stops should also be used. See the notice titled "*Special Mail Stops For Patent Mail*" that is published each week in the Official Gazette Notices and posted on the USPTO Internet web site.

Questions regarding this notice may be e-mailed to [PatentPractice@uspto.gov](mailto:PatentPractice@uspto.gov), or directed to the Inventors' Assistance Center (formerly the Patent Assistance Center (PAC)) by telephone at 800-786-9199 or 703-308-4357.

**14. Establishment of Mail Stop Post Issue; Revision and Deletion of Certain Mail Stops**

Effective April 27, 2004, the United States Patent and Trademark Office (USPTO) has established a new mail stop, Mail Stop Post Issue, and several mail stops have been deleted, or changed. Correspondence that should be directed to Mail Stop Post Issue includes correspondence in applications that have issued as a patent, such as requests for changes of address (other than a fee address, which should be addressed to Mail Stop M Correspondence), powers of attorney, revocations of powers of attorney, withdrawal of attorney, and submissions under 37 CFR 1.501.

The mail stops that should no longer be used are: Mail Stop Application Number; Mail Stop CPA; Mail Stop Design; Mail Stop Non-Fee Amendment; Mail Stop Patent Application; and Mail Stop Provisional Patent Application. Correspondence that would have been addressed to these mail stops no longer needs a specific mail stop. Mail Stop Non-Fee Amendment has been changed to Mail Stop Amendment. Mail Stop PGPUB-ABD has been changed to Mail Stop Express Abandonment and all requests and petitions for an express abandonment under 37 CFR 1.138 should be directed to this mail stop.

Questions regarding this notice may be e-mailed to [PatentPractice@uspto.gov](mailto:PatentPractice@uspto.gov), or directed to the Inventors' Assistance Center (formerly the Patent Assistance Center (PAC)) by telephone at (800)786-9199, or (703)308-4357.

**15. Oversized Postcards Must Be Submitted With Sufficient Postage**

Recently, a number of return receipt postcards have been returned to the U.S. Patent and Trademark Office (Office) because the postcards contained insufficient postage for an oversized postcard. Oversized postcards require First-Class letter postage. Customers are reminded that they are solely responsible for placing the proper postage on self-addressed postcards that are submitted to the Office for the purpose of obtaining a receipt for correspondence being filed in the Office. Customers should be aware of the following guidance from the USPS regarding postage and acceptability for postcards:

{A} In order to be eligible for the First-Class Mail card rates (currently \$0.23 per card, domestic delivery), cards must be of uniform thickness and made of unfolded and uncreased paper or card stock of approximately the quality and weight of a Postal Service stamped card. Cards claimed at the First-Class postcard rate must be:

- (a) Rectangular;
- (b) No less than 3-1/2 inches high, 5 inches long, and 0.007 inch thick; and
- (c) No more than 4-1/4 inches high, 6 inches long, and 0.016 inch thick.

{B}Cards that measure more than 4-1/4 inches high, 6 inches long, or 0.016 inch thick are charged postage at the First-Class Mail letter rates.

Cards that measure less than 3-1/2 inches high, 5 inches long, and 0.007 inch thick are nonmailable.

Any return receipt postcard that does not contain sufficient postage or is not acceptable may not be delivered by the United States Postal Service (USPS) to the address provided on the postcard, and, if returned to the Office, may be discarded.

For information regarding the Office's postcard receipt practice in patent-related matters, see *Manual of Patent Examining Procedure* (MPEP) (8<sup>th</sup> Ed., Rev. 1, Feb. 2003), Section 503. Questions regarding sufficient postage for postcards should be directed to the United States Postal Service. Questions regarding this notice may be e-mailed to [PatentPractice@uspto.gov](mailto:PatentPractice@uspto.gov), or directed to the Inventors' Assistance Center by telephone at (800)786-9199, or (703)308-4357. 07/01/04

### ***Conclusion***

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

**Bethune, et al** discloses auto compensating quantum cryptographic key distribution system based on polarization splitting of light.

**Scmitt** disclose broadband light source system.

**Zitelli** shows combined phase and intensity modulation in optical communication systems.

17. This application is in condition for allowance except for the following formal matters the stated above.

18. Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

19. A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

**20. All Electronic Copies of Patent Application Records Will Now Be Provided as Certified Copies in Electronic Form**

The United States Patent and Trademark Office (USPTO) is changing to an electronic format for the electronic certified copies it supplies of 1) U.S. patent applications as filed, and 2) U.S. patent-related file wrappers and contents. Copies of U.S. patent application documents made from the USPTO's Image File Wrapper (IFW) electronic system will be provided entirely in electronic form and will always be provided as certified copies. In addition, certified copies of patent application documents will no longer be bound, regardless of whether produced from IFW or a paper file.

For the last two years certified copies of large patent application files produced from the USPTO's electronic systems have been provided only on compact disc, with an attached paper certification statement. Currently, certified copies of patent applications as filed of 400 or more pages and all certified File Wrapper copies produced from IFW are provided on compact disc (CD), both with attached paper certification statements. The \$200 fee for a file wrapper and contents was effectively waived and replaced by a \$55 fee when the application contents are provided on CD. See Copies of File Contents Available on Compact Disc Partial Waiver of 37 CFR 1.19(b), 1278 Off. Gaz. Patent Office 261 (Jan. 27, 2004). The fee for an application as filed remains \$20, as set forth in 37 CFR 1.19(b)(1), even when the copy is provided on compact disc.

**Effective July 30, 2004, all copies of patent documents purchased under 37 CFR 1.19 and produced from IFW will be provided only as electronic files, with an imaged certification statement included as part of a digitally signed PDF (portable document format) file containing TIFF (tag image file format) images of the document pages. These electronic files may be downloaded from the USPTO website or provided by the USPTO on compact disc. The electronic files are digitally signed by the USPTO for authenticity and integrity, and cannot be undetectably modified. As mentioned above, all copies purchased pursuant to 37 CFR 1.19 and produced from IFW will be produced only as certified copies. Uncertified copies may be downloaded under the USPTO's Public PAIR system. Before submitting electronic certified copies of the application as filed supplied on CD or in another electronic form to intellectual property offices under Article 4 of the Paris Convention for the Protection of Industrial Property applicants should inquire whether that office accepts priority documents in electronic form. Although the USPTO provides a certified copy in electronic form, applicants may print the certified copies to paper if required by the intellectual property office to which it is submitted.**

The USPTO is actively engaging in discussions with other intellectual property offices for the mutual acceptance of electronic priority documents. Should another intellectual property office not accept a paper or electronic certified copy of a patent application as filed as described in the above paragraph, upon presentation of a notice of non-acceptance by the other office, the USPTO will provide a substitute paper copy with a letter signed by an official of the USPTO addressed to the foreign office indicating that the certified copy of the application as filed is to be accepted under Article 4 of the Paris Convention for the Protection of Industrial Property. Since the USPTO will no longer bind or rivet paper certified copies of patent applications as filed or file wrappers and contents, copies produced by the Office will be identical to copies printed by an applicant from the electronic certified copy. Questions regarding this change in practice should be directed to the Office of Public Records at (703) 308-9743.

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to WILLIAM D CUMMING whose telephone number is 703-305-4394. The examiner can normally be reached on Monday-Tuesday 10:30am to 8:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, WILLIAM TROST can be reached on 703-308-5318. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

22. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Wdc



UNITED STATES  
PATENT AND  
TRADEMARK OFFICE

---

**William Cumming**  
Primary Patent Examiner  
(703) 305-4394  
(703) 746-6075 Fax  
[william.cumming@uspto.gov](mailto:william.cumming@uspto.gov)

  
**WILLIAM CUMMING**  
**PRIMARY EXAMINER**  
**GROUP 2600**